

Notice of Allowability

Application No.

10/822,506

Examiner

Dalip K. Singh

Applicant(s)

SELL, JOHN V.

Art Unit

2671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/22/05.
2. ☒ The allowed claim(s) is/are 1-5, 7-13, 15-23, 25 and 26.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to applicant's amendment dated September 22, 2005 in response to PTO Office Action dated July 15, 2005. The amendments to claim(s) 1, 4, 11, 15, 19, 22 and 24; the deletion of claim(s) 6, 14 and 24 have been noted and entered in the record, and applicant's remarks have been carefully considered resulting in the action as set forth herein below.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Rory D. Rankin (Reg. No. 47,8884), attorney of record, on November 10, 2005.

The application has been amended as follows:

In the claims:

In claim 18, line 1, delete "**14**"; and insert-**12**--.

3. Claims 1-5, 7-13, 15-23, 25 and 26 are allowed.

4. The following is an examiner's statement of reasons for allowance: Prior art does not disclose or render obvious wherein a CPU and graphics unit comprising a graphics unit cache sharing a cache with the graphics unit; wherein the graphics unit is configured to partition images into a plurality of subset areas; tracking the number of times data corresponding to each of the subset areas is considered during the rendering of a first image; wherein the graphics unit including a plurality of entries, each entry corresponding to one of the subset areas and **including an indicator indicating whether the corresponding subset area is**

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cacheable in the shared cache; wherein during the rendering of a second image, the graphics unit is further configured to store data evicted from the graphics unit cache in the shared cache **only if an indicator in an entry which corresponds to the data evicted from the graphics unit cache indicates the data evicted from the graphics unit cache is cacheable in the shared cache**, said indicator being set prior to initiating the rendering of a second image as per independent claims 1, 11, 19,. In particular, US 6,801,208 B2 to Keshava **discloses** a general sharing mechanism which is not specific to any data in particular, and **does not** pertain specific to a particular subset area of a partitioned image and **does not** maintain separate entries for each of the subset areas of a partitioned image and an indicator in the entry indicating whether data for that particular subset are is cacheable in the shared cache when being evicted.

5. Prior art, made of record but not relied upon, US 6,842,180 B1 to Maiyuran et al. **discloses** sharing of graphics resources to enhance cpu performance wherein graphics memory is to be used by graphics engine, CPU or partitioned between the graphics engine and CPU depending upon workloads without making use of an indicator that indicates data evicted is cacheable in the shared cache; US 6,801,2007 B1 to Tischler et al. (multimedia processor employing a shared CPU-Graphics Cache); US 6891543 B2 to Wyatt (sharing memory between a host processor and graphics processor).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Dalip K. Singh** whose telephone number is **(571) 272-7792**. The examiner can normally be reached on Mon-Friday (10:30AM-6:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Ulka Chauhan**, can be reached at **(571) 272-7782**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Please note that the new Central Official FAX number for application specific communications with the USPTO is **571-273-8300** (effective July 15, 2005).

Dalip K. Singh
Examiner, Art Unit 2671

dks
November 14, 2005


ULKA J. CHAUHAN
PRIMARY EXAMINER